



INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

Town of Spencer Ground Water Contamination Investigation

Federal Programs Section – Site Investigation Program

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100 N. Senate Ave., Indianapolis, IN 46204

Background Information:

- BBP (Bean Blossom/Patricksburg) Water Corporation serves drinking water to a population of approximately 9,900 individuals throughout the communities of Spencer, Stinesville, Patricksburg, and Bowling Green in Owen County, Indiana.
- The BBP Water Corporation uses three (3) municipal ground water wells located in Spencer to provide drinking water for the above listed communities.
- In June 2011, BBP Water Corporation first discovered tetrachloroethylene (PCE) contamination in samples of drinking water collected at its treatment plant. Due to this detection, increased monitoring was required, and a second detection occurred in February 2012.
 - PCE is a volatile organic compound (VOC) and a manufactured chemical that does not occur naturally. It is widely used for dry cleaning, textile processing, and as a degreasing solvent in multiple applications.
- In response to the discovery of the contaminants, the Indiana Department of Environmental Management (IDEM) initiated an environmental investigation. Phase I and Phase 2 of the investigation were completed in 2013 and 2014, respectively.
- IDEM and BBP sampling has detected PCE in multiple samples collected directly from the municipality's ground water wells since September 2014. To ensure the public is receiving safe drinking water and to help monitor the situation, BBP Water Corporation has been conducting monthly tests on its water since December of 2014.
- By treating the water, BBP Water Corporation has never had a detection of VOCs in the water that is distributed to the public exceeding the federal Maximum Contaminant Level (MCL) for PCE in drinking water.
 - The MCL is a safe drinking water limit established by the United States Environmental Protection Agency (U.S. EPA) under the Safe Drinking Water Act.
- Under a cooperative agreement with the U.S. EPA, IDEM's Site Investigation Program conducted an environmental sampling investigation throughout the Town of Spencer in June of 2015. The goal was to determine the nature of the ground water contamination, determine potential sources, and determine future actions. Multiple potential sources were identified, and IDEM will be conducting additional sampling in the spring of 2016 to find other potential sources of contamination. Following is information for residents about the planned activities.

Next Steps:

- In the spring of 2016, IDEM's Site Investigation Program will be using a direct push sampling device to obtain subsurface soil samples and ground water samples from various locations throughout Spencer.
- IDEM staff may need to contact businesses or residents to request permission to collect ground water or soil samples from their private property.
 - Property owners who are asked to aid in this investigation will be asked to sign a property access agreement.
 - The sampling will be conducted at no cost to the property owner.
 - IDEM will provide the property owners with their soil and ground water sampling results at no cost.

Environmental and Health Impacts:

- Left unaddressed, ground water contamination may become more widespread and pose a more significant threat in the future.
- PCE exposure can occur several ways, but the most common methods of exposure are through ingestion of drinking water that is contaminated or the inhalation of PCE vapors that are released into the air. It is not uncommon for PCE vapors to be released in small amounts from clothes after they have been dry cleaned. Where water is contaminated with PCE, vapors can be released into the air during bathing, cooking, and laundry activities.
- The U.S. EPA considers PCE likely to be carcinogenic to humans and the U.S. Department of Health and Human Services (DHHS) considers PCE to be reasonably anticipated to be a human carcinogen. The International Agency for Research on Cancer (IARC) considers PCE probably carcinogenic to humans.
- Short term exposure to PCE can cause dizziness or drowsiness, headache, and loss of coordination. Other health effects include changes in mood, memory, attention, reaction time, and vision.
- Along with this fact sheet, IDEM is distributing the *ToxFAQs™ for Tetrachloroethylene* fact sheet from the Agency for Toxic Substances and Disease Registry (ATSDR) that describes PCE and its effects in greater detail.

Additional Information:

- The public may direct questions and concerns regarding IDEM's environmental investigation in the Spencer area, including additional information on sampling results to date, environmental impacts of PCE, and potential drinking water impacts, to Nick Cooper, IDEM Project Manager, at (317) 234-3505; toll free at (800) 451-6027, ext. 4-3505; or by e-mail at ncooper1@idem.IN.gov.
- Questions and concerns about health-related impacts should be directed to the Agency for Toxic Substances and Disease Registry (ATSDR) at (312) 886-1462 or to the Owen County Health Department at (812) 829-5017.
- For a copy of *ToxFAQs™ for Tetrachloroethylene (PCE)*, visit the ATSDR website at <http://www.atsdr.cdc.gov/toxfaqs/tfacts18.pdf>.
- For additional information on the Safe Drinking Water Act (*including maximum contaminant levels*), visit U.S. EPA's website at <http://www.epa.gov/dwstandardsregulations> for its *Drinking Water Contaminants – Standards and Regulations* webpage.
- For information about IDEM's Site Investigation Program, visit IDEM's website at www.idem.IN.gov/4143.htm.
- The news media may contact Barry Sneed, IDEM Public Information Officer, at (317) 232-8596; toll free at (800) 451-6027, ext. 2-8596; or by e-mail at bsneed@idem.IN.gov.